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BRIEF REPORT:
Housing Characteristics of New CalWORKs Applicants

Do new applicants for the California Work Opportunity and Responsibility to Kids (CalWORKs) program live in poor quality housing in the County of Los Angeles? Community advocates and County stakeholders, such as the Public Social Services Commission, have speculated that CalWORKs participants' housing quality may not be adequate, especially in light of a recent increase in crowding across the nation at levels not seen since the 1940s. Stresses and pressures of a sudden or sustained income loss likely force people into unfavorable housing conditions as an adaptation to reduced resources. For instance, a family might select to move in with relatives or friends, and increase the household's dwelling density, or relocate to a residence with poorer quality because it is all they can afford given that the grant amount for the most common CalWORKs case size (three people) is $723 per month, and the well-known lack of affordable family housing throughout the County of Los Angeles.

This line of questioning has been employed in poverty research to reveal, in comparison to the static measure of income at a point in time, a more dynamic dimension of poverty measurement known as an *unsatisfied basic needs index.* The approach uses a community standard of living to classify households that have access to basic needs. The basic needs this report focuses on are structural adequacy of housing and proper dwelling density.

Structural Adequacy and Residential Density

A community ideal we hold is that everyone should have structurally adequate housing that provides access to common amenities, but the reality is that many economically vulnerable County residents do not. For the purpose of this study, structurally adequate housing is defined as housing with complete plumbing and a working kitchen to allow residents to maintain a decent standard of living, and housing that is free of structural defects such as broken windows, frayed electrical wires, evidence of vermin, etc. This definition, consistent with rental housing standards established by California State Building Standards Code, assumes there is adequate access to electricity and/or natural gas to operate appliances. It is also similar to the federal standard developed by the U.S. Department of Housing and Urban Development.

Another community ideal we hold is that everyone should live in uncrowded households. The conventional standard used by the federal government in the 1940s was 2.0 people per room, and by 1950 it was lowered to 1.5 people per room, and then to 1.0 person per room by 1960. These measures were largely determined by the nature and convenience of the census data available rather than ideas about what a valid measure of crowding should be. Rather than using this standard, we applied the "two plus one rule" from the California Department of Fair Employment and Housing guidelines that states that the landlord should allow at least two persons per bedroom plus one additional occupant in the rental unit. For example, two persons should be allowed to occupy a studio unit, three persons a one-bedroom, five persons a two-bedroom, etc. We adopted this standard to apply to all new CalWORKs applicants because the large majority live in a rented structure, and it is the State's sole legal standard for proper dwelling density. Moreover, as will be suggested later in this report, the degree that people share bedrooms has important implications for health outcomes.

What is the prevalence of crowding in American cities? A study of seven metropolitan areas that measured crowding as more than one person per room found that on average about 3% of households were crowded.[1] Researchers estimated that

[1] Kutty, N. K. (January, 1998). U. S. Housing: Determinants of structural adequacy and crowding. Broffenbrenner Life Course Center Working Paper Series # 97-09. Avalaible at SSRN: http://ssrn.com/abstract=58122.

in New York City, for example, slightly more than 5% of households were crowded. The only California city included in the study was San Diego, with an estimate of 4% crowding. A 2002 article in USA Today listed Los Angeles County as one of the most crowded urban areas in the U.S. with an estimate of 12% crowding made by the Fannie Mae Foundation, and applying the federal one-person per room measure of crowding.[2]

Who is living in crowded households? Research points to a triple threat to crowding: being Hispanic, being female-head of a household, and having young children.[3]

Public health research over the past twenty years reveals links between high dwelling density (defined in many different ways including more than one person per room or less than 20 square meters per person) and adverse outcomes for adults and children. Both groups are at increased risk of developing acute and chronic illness through increased exposure to allergens, respiratory irritants, and infectious agents. Moreover, possibly the most potent influence on the transmission of infections is the need to share bedrooms.[4] For example, improper dwelling density is tied to Meningococcal disease[5] (commonly known as spinal meningitis), respiratory diseases,[6] and childhood Helicobacter pylori infection,[7] a common cause of stomach ulcers and contributor to stomach cancer. Another line of research suggests that the high stress, interpersonal conflict, and disturbed sleep found in many of these households reduces release of growth hormone and results in slowing of physical growth (height).[8] A final worry among children, infants and preschoolers especially, is the increased likelihood of

[2] El Nassar, H. (2002). U.S. Neighborhoods grow more crowded. *USA Today, July 7*.
[3] Myers, D., Baer, W, & Choi, S-Y (1996). The changing problem of overcrowded houses. *Journal of the American Planning Association, 62*, 66-84.
[4] Coggon, D, Barker, D. J. P., Inskip, H., & Wield, G. (1993). Housing in early life and later mortality. *Journal of Epidemiology and Community Health, 47*, 345-348.
[5] Deutch, S., Labouriau, R., Schønheyeder, H. C., Østergaard, L., Nørgard, B., & Sørensen, H. T. (2004). Crowding as a risk factor of meningococcal disease in Danish preschool children: A nationwide population based case-control study. *Scandinavian Journal of Infectious Diseases, 36*, 20-23.
[6] Beggs, P. L., & Siciliano, F. (2001). Spatial relationship between dwelling crowding and selected causes of morbidity in Sydney, Australia, 1994-97. *Australian Geographer, 32*, 377-401.
[7] Fall, C. H. D., Goggin, P. M., Hawtin, P., Fines, D., & Duggleby, S. (1997). Growth in infancy, infant feeding, childhood living conditions, and Helicobacter pylori infection at age 70. *Archives of Disease in Childhood, 77*, 310-314.
[8] Montgomery, S. M., Bartley, M. J., & Wilkinson, R. G. (1997). Family conflict and slow growth. *Archives of Disease in Childhood, 77*, 326-330.

bodily injury inside the house or apartment.[9,10] Research on structural inadequacies is less prevalent due to the challenges of data collection, that include, most notably, the cost of sending people out into the field to observe the quality of homes.

Unsatisfied Basic Needs Index

We view "crowding" as a psychological response to dwelling density that is largely influenced by demographic characteristics, housing preferences, life-cycle determinants such as presence of children, and housing availability. Moreover, measurement of perceptions of crowding requires asking residents to what extent they *feel crowded.*[11] Research suggests that perceptions of crowding are indeed heavily influenced by objective indices such as number of persons and number of rooms.[12]

As a consequence of our measurement decisions, our unsatisfied basic needs index includes two components: 1) households that are **structurally inadequate** because they do not meet our structural adequacy standard; and 2) households that have **high dwelling density** because occupancy exceeds the "two plus one rule."

About the Survey

The target group for the housing characteristics survey was the portion of CalWORKs applicants who met initial eligibility criteria and received a home visit at a later date as a step toward acquiring formal approval. Moreover, in a typical month, nearly all of the cases that receive a home visit are approved to receive cash aid through the CalWORKs Program.

The Department of Public Social Services (DPSS) began collecting data on housing quality for the first time in February 2007 and continued through September 2007 during routine visits to homes of new CalWORKs applicants. However, applicants

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[9] Rewers, A., Hedegaard, H.m Lezotte, D., Meng, K., Battan, F. K., Emery, K., & Hamman, R. F. (2005). Childhood femur fractures, associated injuries, and sociodemographic risk factors: A population-based study. *Pediatrics, 115*, e543-e552.

[10] Delgado, J., Ramírez-Cardich, M. E., Gilman, R. H., Lavarello, R., Dahodwala, N., Bazán, A., Rodriguez, V., Cama, R. I., Tovar, M., & Lescano, A. (2002). Risk factors for burns in children: Crowding, poverty, and poor maternal education. *Injury Prevention, 8*, 38-41.

[11] Lawrence, R. (2002). Healthy Residential Environments. In R. B. Bechtel & A. Churchman (Eds.), *Handbook of Environmental Psychology* (pp. 394-412).

[12] Loo, C., & Ong, P. (1984). Crowding perceptions, attitudes, and consequences among the Chinese. *Environment and Behavior, 16*, 55-87.

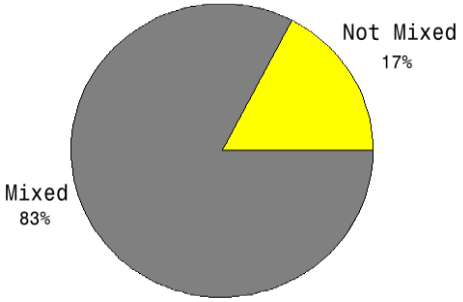
who were deemed ineligible for CalWORKs did not receive a home visit and are not included as subjects. DPSS workers were trained to collect one page of additional information by observation as they walked through participants' places of residence. Workers completed a Scantron-formatted document by bubbling in their observations about the type of housing; its rooms, plumbing and kitchen facilities, and precariousness of living conditions. Information about occupants was recorded from DPSS case records.

It is important to note that no sampling was conducted and surveys were administered for all new CalWORKs applicants who received a home visit between February 2007 and September 2007. Visits were not attempted for applicants who disclosed their homelessness when they applied for aid. Complete data were available for 18,500 of the 22,371 households visited. The 3,871 households excluded from this report had missing and inconsistent data.

Household Characteristics

The two types of households considered for this investigation were households wherein every member is counted for the CalWORKs cash aid amount, and households wherein not every member is counted for CalWORKs cash aid grant amount. To simplify this distinction, we label the latter group Mixed, and the former group Not Mixed. The large majority of households applying for CalWORKs were Mixed (see Figure 1). Mixed households are heterogeneous and may include any combination of the following types of unaided household members: undocumented immigrant parents and siblings, parents receiving Supplemental Security Income from the Social Security Administration, non-needy relatives, and others not related to CalWORKs participants in the household. Detailed data about Mixed households were not available.

Figure 1. Household Type



As expected, on average there were significantly greater numbers of people in Mixed households (4.3) than in Not Mixed households (2.9) (see Figure 2). Both types, however, had a wide range in number of residents, stretching from two to nine for Not Mixed, and two to 11 for Mixed. Household types were strikingly similar in that both had on average two children in them, and ranged from one to six (see Figure 3). The average difference between types in number of residents, then, is accounted for by the number of adults rather than children.

Figure 2. Number of Residents by Household Type

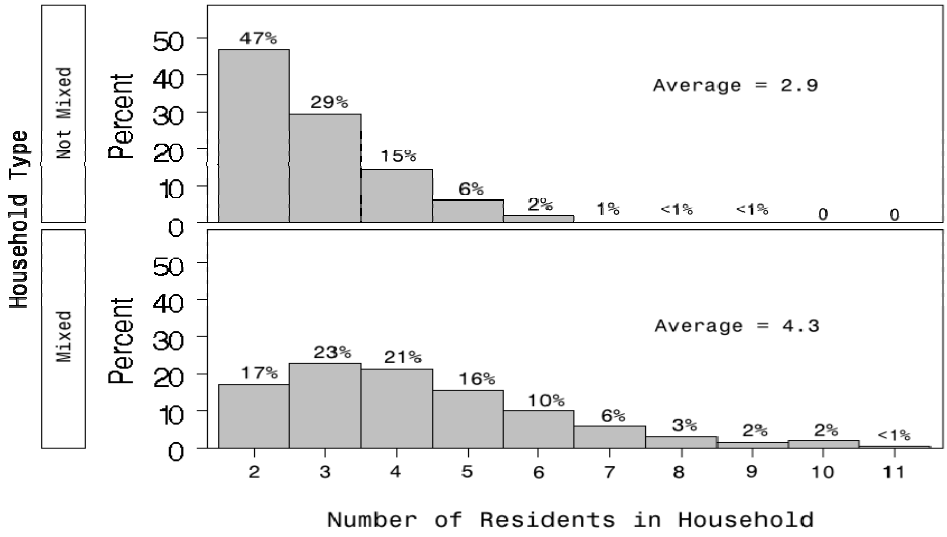
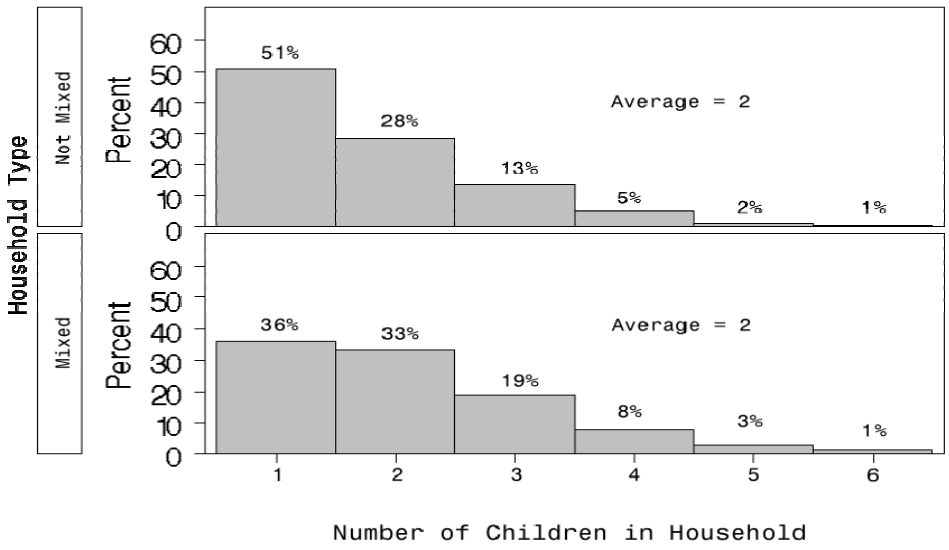


Figure 3. Number of Children by Household Type



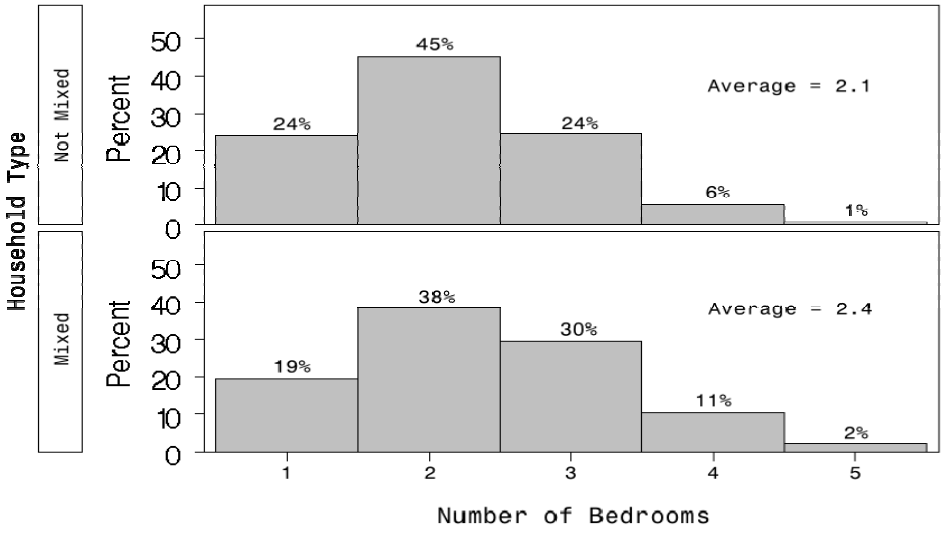
Looking at structure, we found that most families (more than 70% combined) lived in a single-family house or an apartment building (see Table 1). Information about house ownership was not captured, and so we do not know whether or not the CalWORKs applicant was the homeowner. We also found families in places not meant for raising a family who may have qualified for special homeless assistance upon further investigation by DPSS staff.

Table 1. Type of Structure by Household Type

	Household Type	
Type of Structure	Mixed	Not Mixed
One-Family House	47.0%	41.0%
Large Apartment Complex	28.0%	35.0%
Building With 2-6 Units	15.0%	16.5%
Guest House	5.0%	4.0%
Mobile Home	1.5%	2.0%
Public Housing	1.5%	0.5%
Part of Building Not Meant As Living Space	1.5%	1.0%
Hotel, Motel	1.0%	1.0%
Van, RV, Boat	1.0%	1.0%

Mixed households had slightly more bedrooms than Not Mixed households, roughly closer to two than three (see Figure 4.).

Figure 4. Number of Bedrooms by Household Type



As shown in Figure 5, the levels of structural inadequacy were similar for both types of households, and approached 20%. Recall that our measure of structural inadequacy was based on the presence of substandard plumbing or a substandard kitchen or a substandard dwelling. Further examination of these three components for structurally inadequate households revealed that the kitchen was substandard (missing a common kitchen appliance) five to seven times more often than plumbing or the quality of the dwelling's structure (see Figure 6.).

Figure 5. Structural Inadequacy by Household Type

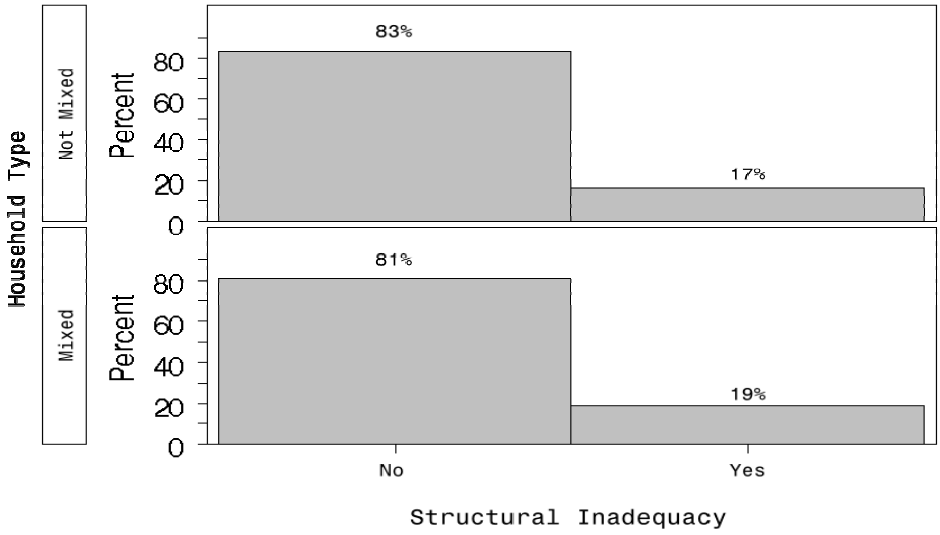
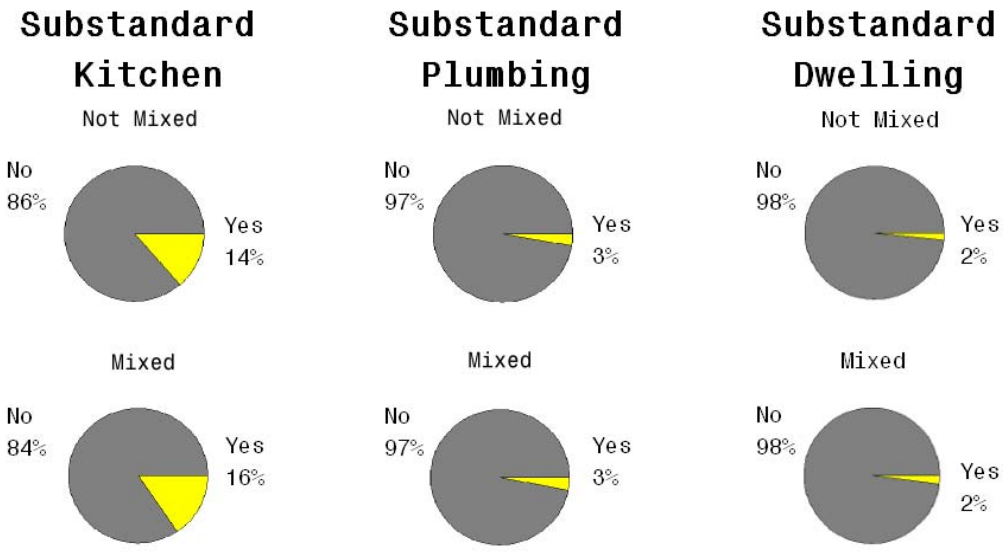


Figure 6. Components of Structural Inadequacy by Household Type



Turning our focus to the relation between the number of residents and the number of bedrooms, and applying the “two plus one rule” for dwelling density we adopted from State law, we found that Mixed households were nearly three times more likely than Not Mixed households to have high dwelling density, 17% and 6%, respectively (see Figure 7). Additionally, Mixed households were four times more likely than Not Mixed households to have evidence of both parts of our unsatisfied needs index, high dwelling density and structural inadequacy, 4% and 1%, respectively (see Figure 8.).

Figure 7. High Dwelling Density by Household Type

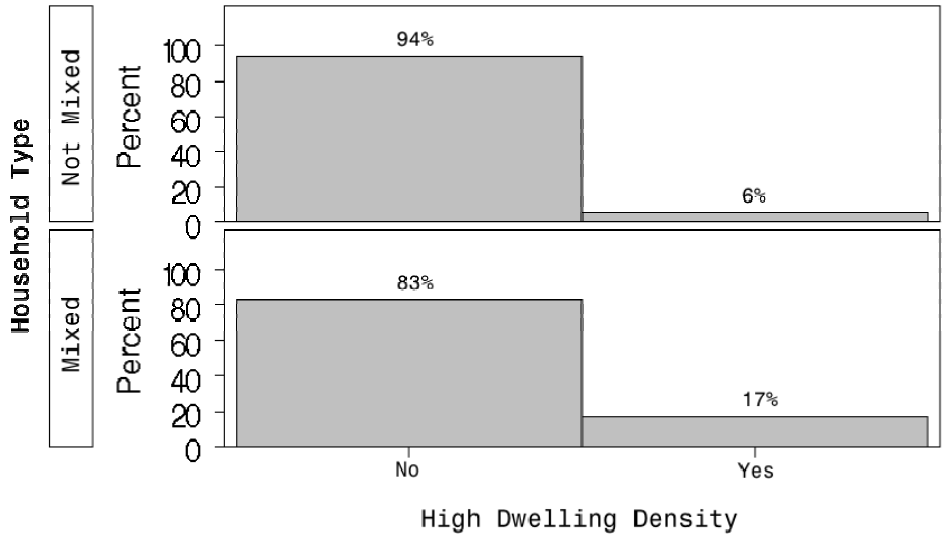
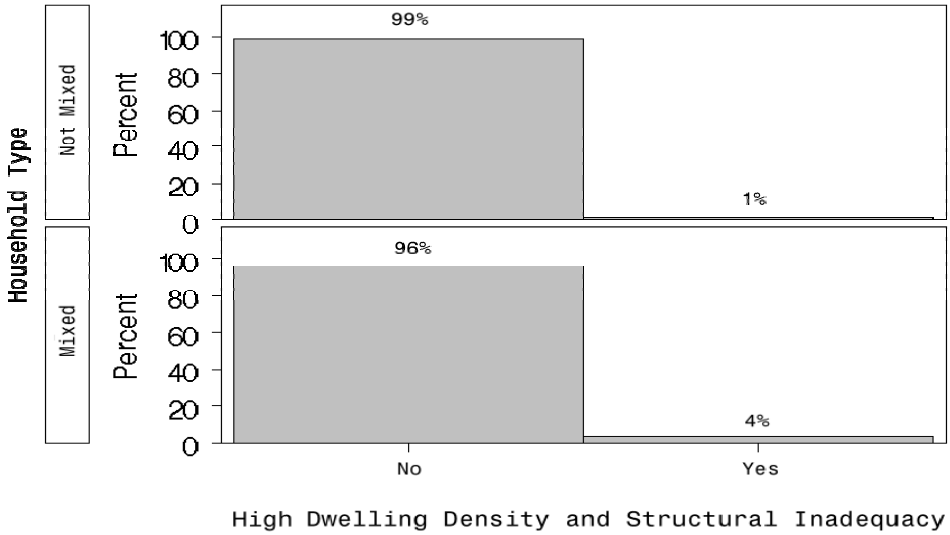


Figure 8. High Dwelling Density and Structural Inadequacy by Household



Conclusion

The results of the study provide the first look at housing quality for the CalWORKs population in the County of Los Angeles with a focus on new applicants. A comparison of the structural inadequacy revealed that nearly 20% of Mixed and Not Mixed were substandard, mainly because of missing large kitchen appliances, such as a stove, that is expected to be in every household. It may be that this condition more often redirects families to high-calorie fast food restaurants than grocery stores for their meals, and plays a role in the development of pediatric obesity.

We found that in the large majority of cases, aided CalWORKs household members were living with others not receiving cash assistance. Consequently, households in this group (Mixed) had a much greater frequency of high dwelling density than CalWORKs families without unaided household members, 17% and 6%, respectively. Both statistics are striking compared with previous estimates of about 3% in metropolitan areas across the United States. However, the differences can be explained in part by two important measurement issues, who was studied and what measurement was used. The estimate of 3% was for entire populations in metropolitan areas and included households with a vast range of income levels rather than a narrow range that qualifies a family for CalWORKs assistance as in this study. Secondly, the estimate was based on the number of persons per room rather than our two-persons-per-bedroom-plus-one formula. The former will always have a larger denominator and result in lower estimates. However, we do not believe our findings are merely artifacts of measurement decisions that can be explained away by the study's design. We believe this is a socially significant issue for CalWORKs families because of the connections described earlier in the report between crowding and poor health and adverse events. In any case, we cannot draw firm conclusions about the housing of CalWORKs participants based on this data regarding CalWORKs applicants.

An obvious extension of this line of inquiry would be to look at changes in the quality of housing as people enter and remain on CalWORKs. We expect that some families might experience improvements while others experience deterioration in housing quality over time, depending on what they have when they enter the program.

An expansion of research in this area would be to examine relations between the different measures of dwelling density and health status of family members over a year's time to determine if one measure demonstrates a stronger link than the other.

In the current unfavorable economic climate, housing quality may be sacrificed more than ever before, and crowding should be our biggest concern. Already struggling families might take in relatives who lost their jobs, or move to a smaller place that is more affordable. Although these might be good decisions for a family in the short-term, in the long-term they might result in compounding of negative cumulative effects.

ACKNOWLEDGEMENTS

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